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CDM FEDERAL PROGRAMS CORPORATION

May 11, 1990

Mr. Jon Bornholm
Work Assignment Manager
U.S. Environmental Protection Agency
345 Courtland Street
Atlanta, GA 30365



PROJECT: EPA Contract No.: 68-W9-0004
DOCUMENT NO: TES7-C04033-EP-BRHJ
SUBJECT: Technical Review of Remedial Investigation Report for WA C04033
Medley Farms Site, Gaffney South Carolina
Document No.: TES7-C04033-DR-BRHK-2

Dear Mr. Bornholm:

This letter documents the transmittal of the above referenced TES VII document as partial fulfillment of the reporting requirements for Work Assignment C04033.

If you have any questions regarding this submittal, please contact John Cwiek or me at (404) 952-7393 within two weeks of receipt of this letter.

Sincerely,

CDM Federal Programs Corporation (FPC)

Abel B. Dunning
TES VII Region IV Administrative Manager

NL/ABD/ln

Enclosure

cc: Jean Wright, EPA HQ TES VII Zone Project Officer
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Document Control (2)
File TES7/C04033



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TECHNICAL REVIEW OF
REMEDIAL INVESTIGATION REPORT

MEDLEY FARMS SITE
GAFFNEY, SOUTH CAROLINA

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, D.C. 20460

Work Assignment No.	: C04033
EPA Region	: IV
Site No.	: 4P73
Contract No.	: 68-W9-0004
CDM Federal Programs	
Corporation Document No.	: TES7-C04033-DR-BRHK-2
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1.0 INTRODUCTION

CDM Federal Programs Corporation (FPC) received a work assignment (WA) from the U.S. Environmental Protection Agency (EPA) (EPA Contract No. 68-W9-0004, WA No. CO4033) to provide technical oversight of remedial investigation/feasibility study (RI/FS) activities taking place at the Medley Farms Site, Gaffney, South Carolina. FPC has subcontracted Versar, Inc. to perform these services. This report presents the results of Versar's technical review of the Remedial Investigation report prepared for the site. The RI/FS is being performed by Sirrine Environmental Consultants (SEC) on behalf of the potentially responsible parties (PRPs).

The scope and quality of the RI/FS were evaluated with respect to (1) objectives outlined in the work plan; (2) objectives for conducting RIs under the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), as implemented under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and as amended under the Superfund Amendments and Reauthorization Act of 1986 (SARA) (40 CFR 300 et seq.); (3) concepts and technical standards for conducting RIs as discussed in "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (EPA, August 1988); and (4) procedures consistent with standard industry practices common to the technical fields involved and with U.S. EPA guidances and policies.

General comments are addressed in Section 2.0, and specific comments are listed in Section 3.0 by page and location in the text.

2.0 GENERAL COMMENTS

The technical review of the RI Report for the Medley Farms site presents a reasonable discussion of background information, and the results of field investigations. The site characterization is rather brief but contains most of the necessary components specified by guidance. The lack of a detailed endangerment assessment (EA) is a major omission.

An EA is typically included with the RI in most Region IV RI/FS Versar has seen. The EA may also be produced as a stand-alone document. However, Sirrine's workplan does not indicate a separate submittal. An EA is essential for evaluating remedial options in the FS, and is required to fully evaluate whether the site characterization touches on all key issues related to site environmental risks. The document should be revised to include an EA, or clearly state that the EA will be submitted in forthcoming submittals.

3.0 SPECIFIC COMMENTS

The following are specific comments to be addressed in the text.

<u>Page</u>	<u>Location</u>	<u>Comment</u>
2	Executive Sum, Para 4	Regarding the installation of seven monitoring wells - work plan calls for eight unless auger refusal or dry borehole is encountered. This statement indicates neither.
2	Section 2.2.4	Versar questions the validity of using site topography to say that surface drainage flows directly to Jones Creek without discussing the possibility of drainage to the other surface water systems in the area. (The Thicketty Creek, Big Blue Branch)
4	Table I-1	Date on soils (Phase 1A Test Pits) collection for sample pit TP10 is 3/8/89 according to Test Pit Report and 3/7/89 according to Table I-1.
4	Table 5.3	Acetone levels were left out for SB6. They should correspond to Table I-3.
9, 12	Test Pit Rpt	Some reports are not completely filled out. Remarks and ground water depth information is left out. All reports should be completed to minimize errors in assumptions.
14	Sec 2.2.1	Reference available information about disposal activities.
16	Para 2	Statement of well with highest concentrations should be referenced.
19	V.O. Analysis	The date of collection is written as July 198, 1984. Please correct this date.
20	Para 1	The sentence "the Sprouse well <u>world</u> appear:" should be "would appear."

<u>Page</u>	<u>Location</u>	<u>Comment</u>
23	Table 2.3	SEC uses abbreviations with no explanations, which could be confusing for the reader.
34-35	Sec 5.4.1, Para 2	Fig 3-1, pg 29 should be referenced in the first sentence. This figure could be placed closer to this section so that reviewers would have easier access. The data is reported in paragraph form; tables would be easier to decipher and be more informative.
35-36	Sec 3.3.3	The construction details of monitor well BW2 are vague. It is difficult to understand how SEC constructed well. A figure and more details of construction could be useful.
36	Sec 3.3.4	Statement that, at a minimum, a volume of water equal to that introduced during drilling was removed during development is unacceptable. Development process must remove all water introduced plus more to ensure groundwater chemistry is not compromised.
37	Sec 3.4.2	SEC advanced boreholes to a maximum of 25 feet below grade when the work plan stated a minimum of 30 feet below grade. SEC should explain this discrepancy.
37, 39	Para 3	Not all 5 foot interval samples from the boreholes were reported. Some explanation by SEC is needed.
39	Para 3	Statement about dioxin sampling is vague, and should explain method of selection of sampling locations.

<u>Page</u>	<u>Location</u>	<u>Comment</u>
39-40	Sec 3.5.1	Sirriner's explanation of omission of required aquifer tests are inadequate. The work plan states slug tests are insufficient yet SEC used slug test as the basis of their evaluation. Single well drawdown/recovery tests would have provided better information on aquifer conditions than slug tests. Slug test data can be strongly influenced by the wells sand pack. Slug tests are acceptable for open hole, bedrock wells, however.
40	Sec 3.5.2	The use of tap water for pressure testing is marginally acceptable where reasonable efforts are made to limit its impact on ground water chemistry. SEC does not include any test on the water quality of the tap water used. SEC only removed an equivalent volume of introduced tap water from each well during purging operation: a greater volume is needed as to not compromise groundwater chemistry and sampling results.
41	Para 2	Statement identifying where water levels extend above the bottom of the screen is very confusing.
44	Sec 3.7.1	Aerial photographs and topographic maps must be referenced.
45	Fig 3.5	Fractures are usually straight, but some are indicated as curved. Therefore, more evidence is needed for these conclusions.
46	Sec 3.7.	Reference for aerial photos is needed.
46	Sec 3.8.1	SEC needs to explain justification of well selection for TCL and TAL parameters/sampling for indicator parameters.

<u>Page</u>	<u>Location</u>	<u>Comment</u>
48	Sec 3.9.1	Explanation is needed as to why SEC selected only Jones Creek for surface water and sediment sampling.
50	Sec 4.2	This is the first mention of a piezometer. The Work Plan does not reference one at all. Further explanation is needed.
50	Para 3	Statement regarding a dual aquifer system remains to be proven.
55	Para 3	SEC's broad statement indicating that there is no downward flow of groundwater is based on only one distant well cluster.
56	Para 3	A figure would be useful depicting topography and groundwater gradients.
57	Table 4.2	According to pages 41-42 Section 3.5.3, the K (Hydraulic conductivity) value is calculated using the formula shown on page 41. The values in the formula do not correlate with Table 4.2 parameters. Table 4.2 has no legend explaining parameters or explaining modified Bouwer-Rice method.
73	Table 5.4	<u>Error #1</u> : The level for TP7 A1 13,200 (b) does not correspond to Table I-1 TP7-1 for A1 which is 12,200 E [E is the same meaning as (b)]. <u>Error #2</u> : The (b) is missing from TP7, Fe - 10,300: Table I-1 states this is value TP7-1. Iron should be 10,300 E.
75	Para 2	No explanation is given as to why background levels of cadmium are above typical regional values.
76	Table 5.5	The value for SB1-S5 for Chromium, 2.1, does not correspond to Table I-1, SB1-S5 for Chromium which is 2.1 B. This B would be written as (a) in Table 5.5 [should be 2.1 (a)].

<u>Page</u>	<u>Location</u>	<u>Comment</u>
77	Sec 5.5.1	The total VOC for SB6 at 5-7 ft is 77 not 6 and the total VOC for SB4 at 15-17 ft depth is 4330, not 3932 according to Table I-3.
77	Sec 5.5.1	Acetone was also seen in SB6.
81	Table 5.8	BW1 (Background) for Mg = 2,750 & Zn = 5.1 does not correspond with Table I-5. If Table I-5 is correct, Table 5.8 should be Mg = BDL ^b , Zn = BDL ^b .
84	Table 5.9	Discrepancies between and Table 5.9 and analytical results, respectively: 1) 1A Test Pit, Inorganics, Sample Rinsate 1 vs 0; 2) 1B, Soil Borings, Volatile Organics, Field Duplicate 2 vs 1; 3) 1B, Soil Borings, Volatile Organics, field Samples 27 vs 25; 4) 1B, Soil Borings, Semi-volatile Organics, Sample Rinsate 2 vs 1.
Appendix I Table I-1		It appears that 2 N's have not been stipled: TP10-1, Barium - 272N and TP9- 1, Cyanide - 1N. To keep the overall organization of these tables consistent, these were supposed to be colored because they are recorded in Table S4 as values above detection limits.